

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.             | FILING DATE          | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|----------------------|------------------------|---------------------|------------------|
| 10/606,713                  | 06/26/2003           | Naysen Jesse Robertson | 200208055-1         | 5776             |
| . 7                         | . 7590 10/23/2006    |                        | EXAMINER            |                  |
| HEWLETT-PACKARD COMPANY     |                      |                        | BARAN, MARY C       |                  |
| Intellectual Pro            | perty Adminsitration |                        |                     | *                |
| P.O. Box 272400             |                      |                        | ART UNIT            | PAPER NUMBER     |
| Fort Collins, CO 80527-2400 |                      |                        | 2857                |                  |

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.   | Applicant(s)   | <del></del> |
|--|---|--|-------------|
| Office A -41 2   | 10/606,713  | ROBERTSON ET AL.   |             |
| Office Action Summary  | Examiner  | Art Unit   |             |
|  | Mary Kate B. Baran  | 2857   |             |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c  | orrespondence address  |             |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | I. ely filed the mailing date of this communication (35 U.S.C. § 133). |             |
| Status   |   |  |             |
| <ol> <li>Responsive to communication(s) filed on <u>28 Jules</u></li> <li>This action is <b>FINAL</b>. 2b) This</li> <li>Since this application is in condition for alloware closed in accordance with the practice under Exercise.</li> </ol>   | action is non-final.  nce except for formal matters, pro  |  | s           |
| Disposition of Claims  |   |  |             |
| 4) ☐ Claim(s) 1,2,4-6,8-20 and 22-29 is/are pending 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1,2,4-6,8-20 and 22-29 is/are rejected 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or   | vn from consideration.  |  |             |
| Application Papers   |   |  |             |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on 26 June 2003 is/are: a)  Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct  11) The oath or declaration is objected to by the Ex   | ☑ accepted or b)☐ objected to drawing(s) be held in abeyance. See ion is required if the drawing(s) is object.  | e 37 CFR 1.85(a).<br>ected to. See 37 CFR 1.121                        | (d).        |
| Priority under 35 U.S.C. § 119   |   |  |             |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list   | s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).  | on No ed in this National Stage  |             |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date 7/28/06.  | 4) Interview Summary Paper No(s)/Mail Date of Informal F 6) Other:  | ate  |             |

#### **DETAILED ACTION**

## Response to Amendment

- 1. The action is responsive to the Amendment filed on 28 July 2006. Claims 1, 2, 4-6, 8-20 and 22-29 are pending. Claims 1, 2, 4-6, 8, 9, 20, 22 and 25-27 are amended. Claims 3, 7 and 21 are cancelled.
- 2. The amendments filed 28 July 2006 are sufficient to overcome the prior objections to the specification and claims.

# Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4-6, 8-20 and 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogley (U.S. Patent No. 6,617,872) in view of Hawkins et al. (U.S. PG-Pub. No. US2003/0130969) (hereinafter Hawkins).

Referring to claims 1, 20 and 25, Vogley teaches a margin testing system for frequency margin testing one or more components of an electronic system (see Vogley, column 4 lines 1-2), the margin testing system comprising: a controller (see Vogley, column 3 lines 36-39); and a digital frequency synthesizer (see Vogley, column 4 lines 39-43) configured to communicate with said controller and generate one or more test

Application/Control Number: 10/606,713

Art Unit: 2857

frequencies for application to one or more components in response to commands from said controller (see Vogley, column 4 lines 39-51 and column 6 lines 15-20); wherein said controller is configured to monitor a response of said electronic system to said test frequencies (see Vogley, column 4 lines 23-51), but does not specify that the microprocessor (i.e. controller) is a baseboard management controller.

Hawkins teaches a baseboard management controller which provides autonomous monitoring, event logging and recovery control (see Hawkins, page 2 [0015]-[0017]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Vogley to include the teachings of Hawkins because adding a baseboard management controller would have allowed the skilled artisan to provide intelligence to the platform management (see Hawkins, page 2 paragraph [0015]).

Referring to claims 2 and 26, Vogley teaches collecting and analyzing data regarding a response of one or more selected components of said system to said test frequencies (see Vogley, column 3 lines 17-32).

Referring to claims 4 and 5, Vogley teaches a hardware monitor configured to communicate with said controller and said frequency synthesizer to measure values of said one or more test frequencies and to transmit said measured values to said controller (see Vogley, column 4 lines 39-51 and column 5 lines 1-19) and to receive

data regarding response of said components to said one or more test frequencies (see Vogley, column 4 lines 39-51 and column 5 lines 1-19).

Referring to claim 6, Vogley teaches that said controller is configured to transmit command signals to said frequency synthesizer to cause the synthesizer to generate said one or more test frequencies (see Vogley, column 5 lines 1-19 and column 6 lines 15-20).

Referring to claims 8-10, 22-24, 27 and 28, Vogley teaches all the features of the claimed invention except that the BMC implements Intelligent Platform Management Interface (IPMI) protocol; that the communication bus is a I<sup>2</sup>C-based bus; that said I<sup>2</sup>C-based bus; and that said computer system is a computer server.

Hawkins teaches that the BMC implements Intelligent Platform Management Interface (IPMI) protocol (see Hawkins, pages 1-2 [0014]); that the communication bus is an I<sup>2</sup>C-based bus (see Hawkins, page 1 [0006]); that said I<sup>2</sup>C-based bus is an IPMB bus (see Hawkins, page 1 [0013]); and that said computer system is a computer server (see Hawkins, page 1 [0004]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Vogley to include the teachings of Hawkins because implementing an Intelligent Platform Management Interface (IPMI) protocol, including an I<sup>2</sup>C-based bus, wherein said I<sup>2</sup>C-based bus is an IPMB bus, and that said computer

Application/Control Number: 10/606,713

Art Unit: 2857

system is a computer server would have allowed the skilled artisan to provide a star intelligent platform management bus topology.

Referring to claim 11, Vogley teaches that said frequency synthesizer receives an input reference clock signal and, in response to a command signal from said controller, generates an output clock signal as a multiple of said input clock signal (see Vogley, column 3 lines 7-16).

Referring to claim 12, Vogley teaches that said frequency synthesizer applies said output clock signal as a test frequency to one or more components for frequency margin testing thereof (see Vogley, column 3 lines 7-16).

Referring to claims 13 and 29, Vogley teaches that said frequency synthesizer generates each one of a plurality of test frequencies based on a pattern of input bits received from the controller (see Vogley, column 6 lines 15-37).

Referring to claim 14, Vogley teaches that said controller initiates margin testing in response to commands from an external system (see Vogley, Figure 1 and column 3 lines 17-20).

Referring to claim 15, Vogley teaches that said external system comprises: a console in communication with said controller via a serial bus (see Vogley, column 3 lines 7-16).

Referring to claims 16 and 17, Vogley teaches that external system comprises: a remote computer in communication with said controller, said remote computer communicates with said controller via a network-based connection (see Vogley, column 4 lines 44-67).

Referring to claim 18, Vogley teaches that sad external system includes a scripting entity for generating commands for transmission to said controller (see Vogley, column 3 lines 34-43).

Referring to claim 19, Vogley teaches that said one or more components receive nominal clock frequencies in the absence of said test frequencies (see Vogley, column 6 lines 48-61).

### Response to Arguments

4. Applicant's arguments filed 28 July 2006 have been fully considered but they are not persuasive.

Applicant argues that Vogley does not teach "a baseboard management controller that is configured to monitor a response of said electronic system to said test

values." However, Applicant's arguments are not well taken. Vogley teaches a microprocessor which is used as a controller (see Vogley, column 3 lines 36-39) and configured to test the frequency margin (see Vogley, column 4 lines 23-38), modify the conditions to reach a last pass (see Vogley, column 4 lines 39-43) and store the results (see Vogley, column 4 lines 44-51). Vogley does not specify that the microprocessor (i.e. controller) is a baseboard management controller; however, this limitation is met by Hawkins. Hawkins teaches a baseboard management controller which provides autonomous monitoring, event logging and recovery control. The baseboard management controller is connected to both sensors and control circuitry which allow it to monitor various events (i.e. out-of-range values, crossed thresholds, etc.) for a variety of variables (i.e. voltage, temperature, power, etc.). It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Vogley to include the teachings of Hawkins because adding a baseboard management controller would have allowed the skilled artisan to provide intelligence to the platform management (see Hawkins, page 2 paragraph [0015]).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

#### Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Kate B. Baran whose telephone number is (571) 272-2211. The examiner can normally be reached on Monday - Friday from 9:00 am to 6:00 pm.

Application/Control Number: 10/606,713

Art Unit: 2857

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

14 October 2006

MARC S. HOFF SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800 Page 9